

What is claim d:

1. A process for applying a hydrophobic additive to a tissue comprising the steps of:
providing a tissue web; and
extruding a hydrophobic composition onto said tissue
- 5 web, said composition being extruded through a melt blown die onto said web, said composition having a viscosity sufficient for said composition to form fibers as said composition is extruded through said melt blown die and onto said tissue web, said hydrophobic composition being applied to at least one side of the web, said hydrophobic composition being applied so as to cover from about 20% to about 80% of the surface area of the side of the web.
- 10

2. A process as defined in claim 1, wherein both sides of said web are treated with said hydrophobic composition.

3. A process as defined in claim 1, wherein said tissue web has a basis weight of less than about 60 gsm and wherein the treated tissue web has a Wet Out Time of less than about 5 seconds.

4. A process as defined in claim 3, wherein the tissue web has a basis weight of from about 25 gsm to about 45 gsm.

5. A process as defined in claim 1, wherein the hydrophobic composition consists essentially of a polysiloxane.

6. A process as defined in claim 1, wherein the treated tissue web has a Wet Out Time of no more than 3 seconds greater than the tissue web untreated.

7. A process as defined in claim 1, wherein the treated tissue web has a Wet Out Time of no more than 1 second greater than the tissue web untreated.

8. A process as defined in claim 1, wherein said viscous composition comprises a softener.

9. A process as defined in claim 8, wherein said softener

TYPED COPY OF AN ELECTRONIC FILING

*Sub
A7*

comprises a polysiloxane.

10. A process as defined in claim 1, wherein said composition comprises a material selected from the group consisting of an anti-acne agent, an anti-microbial agent, an anti-fungal agent, an antiseptic, an antioxidant, a cosmetic astringent, a drug astringent, an aiological agent, 5 an emollient, an external analgesic, a humectant, a moisturizing agent, a skin conditioning agent, a skin exfoliating agent, a sunscreen agent, and mixtures thereof.

11. A process as defined in claim 1, wherein said composition contains no surfactants.

12. A process as defined in claim 1, wherein said viscous composition has a viscosity of at least 1000 cps.

13. A process as defined in claim 1, wherein said viscous composition has a viscosity of at least 2000 cps.

14. A process as defined in claim 1, wherein said composition is heated prior to being extruded through said melt blown die.

15. A process as defined in claim 1, wherein said composition is applied to said tissue web in an amount of from about 0.1% to about 5% by weight of said web.

16. A process as defined in claim 1, wherein said composition forms continuous fibers as said composition is extruded through said melt blown die.

17. A process as defined in claim 1, wherein said fibers exiting said melt blown die have a diameter of from about 5 microns to about 100 microns.

18. A process as defined in claim 1, wherein said fibers are attenuated prior to being deposited onto the tissue web.

19. A process as defined in claim 1, wherein the hydrophobic composition is applied so as to cover from about 30% to about 60% of the surface area of the side of the web.

F0029457-A222400

SUB
A7

20. A process as defined in 9, wherein the polysiloxane is an aminopolydialkylsiloxane.
21. A process as defined in claim 9, wherein the polysiloxane is an aminopolydimethylsiloxane.
22. A process as defined in claim 1, wherein the composition contains no preservatives.
23. A process as defined in claim 1, wherein the viscous composition has a viscosity of at least 3000 cps.
24. A process as defined in claim 1, wherein the composition is extruded at ambient temperatures.
25. A process as defined in claim 1, wherein the composition is applied to the tissue web in an amount from about 0.5% to about 2% by weight of the web.
26. A tissue product comprising:
a tissue web comprising cellulosic fibers; and
a topical/viscous composition applied to at least one side of said paper web, said viscous composition comprising a chemical additive, said viscous composition being present on said paper web in the form of fibers, said viscous composition being applied to at least one side of the paper web so as to cover from about 20% to about 80% of the surface area of the web.
27. A tissue product as defined in claim 26, wherein the tissue web has a basis weight of from about 25 gsm to about 45 gsm and a Wet Out Time of less than about 5 seconds.
28. A tissue product as defined in claim 26, wherein the topical composition is applied to both sides of the web.
29. A tissue product as defined in claim 28, wherein the tissue web has a basis weight of from about 25 gsm to about 45 gsm and a Wet Out Time of less than about 4 seconds.
30. A tissue product as defined in claim 26, wherein the topical composition is applied to each side of the web in an amount so as to

SEARCHED INDEXED
SERIALIZED FILED

SUB
CJ

5

cover from about 30% to about 60% of the surface area of each side of the web.

31. A tissue product as defined in claim 30, wherein the tissue product has a Wet Out Time of less than about 5 seconds.

32. A tissue product as defined in claim 26, wherein the tissue product has a Wet Out Time of no more than 3 seconds greater than the tissue web untreated with the topical composition.

33. A tissue product as defined in claim 26, wherein the tissue product has a Wet Out Time of no more than 1 second greater than the tissue web untreated with the topical composition.

34. A tissue product as defined in claim 26, wherein said fibers comprise continuous filaments.

35. A tissue product as defined in claim 26, wherein said chemical additive comprises a softener.

36. A tissue product as defined in claim 26, wherein said viscous composition consists essentially a softener.

37. A tissue product as defined in claim 35, wherein said softener comprises a polysiloxane.

38. A tissue product as defined in claim 36, wherein said softener comprises a polysiloxane.

39. A tissue product as defined in claim 26, wherein said viscous composition is present on said paper web in an amount from about 0.1% to about 5% by weight, based upon the weight of the web.

40. A tissue product as defined in claim 26, wherein the fibers are attenuated.

41. A tissue product as defined in claim 35, wherein the softener comprises an aminopolydialkylsiloxane.

42. A tissue product as defined in claim 36, wherein the softener is an aminopolydialkylsiloxane.

43. A tissue product comprising:

TOP SECRET//DEFENSE

Sub
C17

a tissue web having a basis weight of from about 25 gsm to about 45 gsm; and

- 5 a hydrophobic composition applied to both sides of the tissue web, the hydrophobic composition comprising a chemical additive, the hydrophobic composition being present on the web in the form of fibers, the composition being applied to each side of the web so as to cover from about 20% to about 80% of the surface area of each side of the web, the treated tissue web having a Wet Out Time of less than
10 about 5 seconds.

44. A tissue product as defined in claim 43, wherein the hydrophobic composition is applied to the web in an amount sufficient to cover from about 30% to about 60% of the surface area of both sides of the web.

45. A tissue product as defined in claim 43, wherein the product has a Wet Out Time of less than about 4.8 seconds.

46. A tissue product as defined in claim 43, wherein the tissue product comprising bath tissue.

47. A tissue product as defined in claim 43, wherein the hydrophobic composition comprises a polysiloxane.

48. A tissue product as defined in claim 43, wherein the hydrophobic composition consists essentially of a polysiloxane.

49. A tissue product as defined in claim 47, wherein the polysiloxane comprises an aminopolysiloxane or a polyether derivatised aminopolysiloxane.

50. A tissue product as defined in claim 43, wherein the fibers comprise continuous filaments.

51. A tissue product as defined in claim 43, wherein the hydrophobic composition is present on the paper web in a total amount of from about 0.1% to about 5% by weight, based upon the weight of the web.

SEARCHED INDEXED
SERIALIZED FILED

SUB
W/

52. A tissue product as defined in claim 43, wherein the fibers are attenuated.

53. A tissue product as defined in claim 43, wherein the chemical additive is an aminopolydialkylsiloxane.

52
53

4,603,623 4,223,101